

CLAIMS

What is claimed is:

1. A method comprising:
determining a property of a data item to be transferred in a communication network;
determining a property of the communication network; and
dynamically modifying a payload header suppression module in relation to an analysis of the property of the communication network and the property of the data item.
2. The method of claim 1, comprising dynamically setting the payload header suppression module.
3. The method of claim 1, comprising dynamically modifying the payload header suppression module if the property of the data item is greater than a threshold value.
4. The method of claim 3, comprising comparing the property of the data item to the threshold value.
5. The method of claim 1, comprising dynamically modifying the payload header suppression module if a size of the data item is greater than a data transfer window size.
6. The method of claim 1, comprising dynamically suppressing a static portion of an acknowledgment packet.
7. The method of claim 6, comprising restoring the suppressed static portion of said acknowledgment packet.
8. The method of claim 1, comprising dynamically modifying a characteristic of the data item in relation to an analysis of a header and a content of said data item.

9. The method of claim 1, comprising repeating the determining a property of a data item and the dynamically modifying the payload header suppression module.
10. An apparatus comprising:
a processor to determine a characteristic of a data item to be transmitted over a communication network, to determine a characteristic of the communication network, and to change a payload header suppression rule based on a comparison of the characteristic of the communication network and the characteristic of the data item.
11. The apparatus of claim 10, wherein the processor is to dynamically modify a payload header suppression module.
12. The apparatus of claim 10, wherein the processor is to dynamically set a payload header suppression module.
13. The apparatus of claim 10, wherein the processor is to dynamically modify a payload header suppression module if the characteristic of the data item is greater than a threshold value.
14. The apparatus of claim 13, wherein the processor is to compare the characteristic of the data item to the threshold value.
15. The apparatus of claim 10, wherein the processor is to dynamically modify a payload header suppression module if a size of the data item is greater than a data transfer window size.
16. The apparatus of claim 10, wherein the processor is to suppress a static portion of an acknowledgment packet.
17. The apparatus of claim 16, wherein the processor is to rebuild the suppressed static portion of said acknowledgment packet.

18. The apparatus of claim 10, wherein the processor is to dynamically modify a property of the data item in relation to an analysis of a header and a content of said data item.
19. The apparatus of claim 10, wherein the apparatus comprises a modem.
20. The apparatus of claim 10, wherein the apparatus comprises a cable modem.
21. The apparatus of claim 10, wherein the apparatus comprises a cable modem termination system.
22. A modem comprising:
a dynamic random access memory; and
a processor to dynamically determine a characteristic of a data item to be transmitted over a communication network, to determine a property of the communication network, and to dynamically change a payload header suppression rule based on a comparison of the property of the communication network and the characteristic of the data item.
23. The modem of claim 22, wherein the processor is to dynamically set a payload header suppression module.
24. The modem of claim 22, wherein the processor is to dynamically suppress a static portion of an acknowledgment packet.
25. A machine-readable medium having stored thereon a set of instructions that, if executed by a machine, cause the machine to perform a method comprising:
determining a characteristic of a data item to be transmitted;
selectively suppressing a portion of a header of a packet based on the characteristic; and
repeating the determining and the selectively suppressing.

26. The machine-readable medium of claim 25, wherein the portion of the header is a portion of an acknowledgement packet.
27. The machine-readable medium of claim 25, wherein the method comprises dynamically modifying a payload header suppression module if a size of the data item is greater than a data transfer window size.